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D2.1 Design, progress and evaluation of the Prinzessinnengarten pilot (version 1)

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ICT - Information and Communication Technologies

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D2.1 Design, progress and evaluation of the Prinzessinnengarten pilot (version 1)

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Executive summary

The objective of this deliverable is to report on the design, progress and evaluation of the MAZI pilot conducted in Berlin by the Design Research Lab of Berlin University of the Arts and Common Grounds e.V.

The report first provides an outline to the context, the design approaches and the main actors. The section thus describes the departure point, from which the team initially started to develop the pilot project.

Following this, a detailed description of the progress is being delivered. For this, an updated description of the pilots circumstances and context is being provided, followed by an overview about implications of these updates to the pilot plan. The section then proceeds to describe the design process as conducted in the reporting phase.

The report then concludes with an evaluation of this progress, for which the first deployment of the prototype is being reflected and further steps in its development are indicated. The section also describes a set of learnings, questions and challenges, that emerged from the pilot process and appear relevant for the project at large.

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1. Introduction

This deliverable reports on the design, progress and evaluation of the Berlin pilot within MAZI, specifically on **Phase 1 – Co-Designing of MAZI framework, early lo-fi prototyping (M3-M9)**.

The report first recapitulates the overall context of the pilot and briefly describes the actors involved as well as the wider stakeholder map, as this will be important for understanding the choices made in the progress of the pilot.

Following this, we report on the work carried out within the first nine months of the project. For this, we follow a chronological structure, for which the progress has been divided into five different stages, starting from before the actual project start and ending with the stage immediately after the launch of the first prototype:

- 1) Project building/setup,
- 2) Community outreach, identity building, ideation,
- 3) Concept building,
- 4) Prototyping,
- 5) Deployment and testing.

This artificial distinction of a flowing process enables us to concretely understand and reflect the circumstances, choices and effects of each of the central stages in the development of our work.

Finally, the report turns to documentation and analysis, where we provide a first evaluation, derive numerous concepts and overarching lessons learned in the process and project these learnings towards the steps to take in the immediate and further future.

2. The Pilot Design

2.1 The pilot context

In this pilot, the Design Research Lab¹ of the Berlin University of the Arts² (UdK) collaborates with Common Grounds³, the association carrying the civil society platform for collective learning “Neighborhood Academy”⁴ (NAK). This collaboration contextualizes the developments and reflections of technology relevant to MAZI with a framework that facilitates and supports the civic discourse about socially and ecologically just living conditions, which includes but is not limited to the question of land use governance.

Common Grounds is promoting cooperative forms of shared use and management of resources (commons), moderating between different stakeholders (municipalities, civil society, universities). The association co-initiated the Nachbarschaftsakademie (Neighborhood Academy, NAK) as a platform for different initiatives - in a local, European, as well as global context - to share and exchange knowledge, methods, and experiences. This approach is referred to as process of “collective learning” by the NAK as the nucleus of its developments and activities.

The starting point for the work of Common Grounds has been one of the most prolific symbols of bottom-up development in Germany’s capital: The Prinzessinnengarten⁵, a social and ecological urban agriculture project that has been founded and is being maintained and developed by Nomadisch Grün GmbH since 2009 on designated public land. With hundreds of engaged neighbours contributing, the 6000 square meter vacant lot in the center of the city has been transformed into a publicly accessible garden. It is located right outside a metro station in the center of Kreuzberg, a district known for its diversity, alternative culture, history of political movements – but also for a steadily increasing processes of gentrification. Today, the space is home to more than 500 varieties of vegetables, but also serves as a multifunctional place hosting various kinds of initiatives and socio-cultural activities. With estimated 60,000 visitors and more than 1,000 volunteers per year its appeal extends far beyond the immediate neighbourhood.

Central topics addressed by the garden and its users as well as visitors include participatory city making, public discourse, biodiversity, nutrition, recycling, environmental justice, climate change, and food sovereignty. Prinzessinnengarten serves as a platform for all kinds of practical social-ecological activities, including gardening, repairing bikes, beekeeping, reuse workshops, lectures and public discussions, film screenings and artistic interventions, with the overarching goal of exploring sustainable future ways of urban living. As a central characteristic of the project, Prinzessinnengarten peruses a horizontal and democratic approach. It is open to everyone to get involved in the process of knowledge exchange and informal learning. Furthermore, through the opportunity to contribute and to participate in open workshops, through the garden café and a variety of cultural events, the Prinzessinnengarten has become one of Kreuzbergs most popular and lively meeting places.

In the summer of 2012, despite its popularity as a public good, the grounds of Prinzessinnengarten were put up for sale and its existence was threatened. The initiative launched a campaign including open letters to the Berlin Mayor and the Senate and a petition, which attained more than 30,000 signatures and was well recognized in both the national and international media. This support helped to achieve an agreement with the city administration to stay on its plot until 2018 (coinciding with the conclusion of MAZI).

The discussions around these processes oscillated between an acclaimed, but at the same time precarious project, the municipality and the absence of any formalized instruments of negotiation. In developing the understanding that the processes around Prinzessinnengarten was not a singular case, but rather exemplary for the situation for several different civil society lead projects, Common Grounds developed the objective to

¹ <http://www.design-research-lab.org>

² <https://www.udk-berlin.de>

³ <http://common-grounds.net>

⁴ <http://www.nachbarschaftsakademie.org>

⁵ <http://prinzessinnengarten.net>

generate novel ideas for new forms of participation. Opposing the short-term decision making about specific sites, this approach is based on the idea that real participation has to be grounded in a long term process of collective learning. This starts with creating platforms of knowledge exchange between different initiatives and bringing together the rich expertise & experienced gathered in bottom-up and civil society activities.

The pilot aims at creating novel possibilities to allow and facilitate forms of participation that allow for this kind of learning processes. The pilot is specifically addressing city development issues, which ultimately address the topic of future orientated, socially and ecologically sustainable forms of urban development. Thus, this pilot serves a twofold purpose, namely a) [DISCOURSE] the initiation, support and enrichment of public discourses about the future of the site and public land in general, and b) [KNOWLEDGE] the open and collaborative generation of knowledge about the complexity of this topic, both fostering and building on the already cultivated and ongoing processes of informal learning in the existing framework of Prinzessinnengarten.

2.2 The pilot team

2.2.1 Design Research Lab/UdK

Berlin University of the Arts is one of the biggest, most diverse art universities in Europe. The Design Research Lab (DRLab) was founded in 2005 as part of the Telekom Innovation Laboratories at the Technical University of Berlin. Since 2010 it has been based at the Berlin University of the Arts in the Design Research department chaired by Prof. Dr. Gesche Joost, with the goal to close the gap that often forms between the technological developments objectives and users' needs and expectations. Understanding the needs of people whose backgrounds and abilities vary greatly is paramount in both practical and theoretical analysis: these groups of people include, for example, women, families, the elderly, adolescents or people with disabilities. The questions central to the DRLab's work investigate how future forms of communication will be conceived, designed and implemented, and how they will change society; how people can be better integrated during the development process (participatory design); or how aspects of social, ecological and economic sustainability can be accounted for in the process of creation and implementation.

2.2.2 Neighborhood Academy/Prinzessinnengarten

Common Grounds is a non-profit association supporting and developing new local practices to foster resilient living in cities. One focus of the association is to share and multiply the experience in the pioneering work being done in urban community gardens. As one of the organizations behind

Prinzessinnengarten, it is currently building up the platform "new urban green", a consultation network for new garden initiatives and local government, to build long lasting frameworks supporting urban agriculture and the proliferation of community gardens. Common Grounds gives consultations and workshops on the topics of neighbourhood participation, organizational development, networking and fundraising to new garden initiatives, and is currently developing a handbook for urban garden initiatives and local governments. Since 2015, Common Grounds is in cooperation with Nomadisch Grün, Asa Sonjasdotter and the Association Anstiftung, piloting the first Curriculum for the NAK/Prinzessinnengarten, an open platform for urban and rural research, art and activism.

2.2.3 Other Stakeholders

NAK as an entity is organized and carried by Common Grounds and its protagonists. However, it directly and indirectly involves and therefore consists of a heterogeneous assemblage of actors, initiatives, ideas and processes (see figure 1). As described in stage two of this report, this has implications on the pilot design, as it presents the project team with the privileges and burdens of a rather wide landscape of stakeholders to be included in the processes.

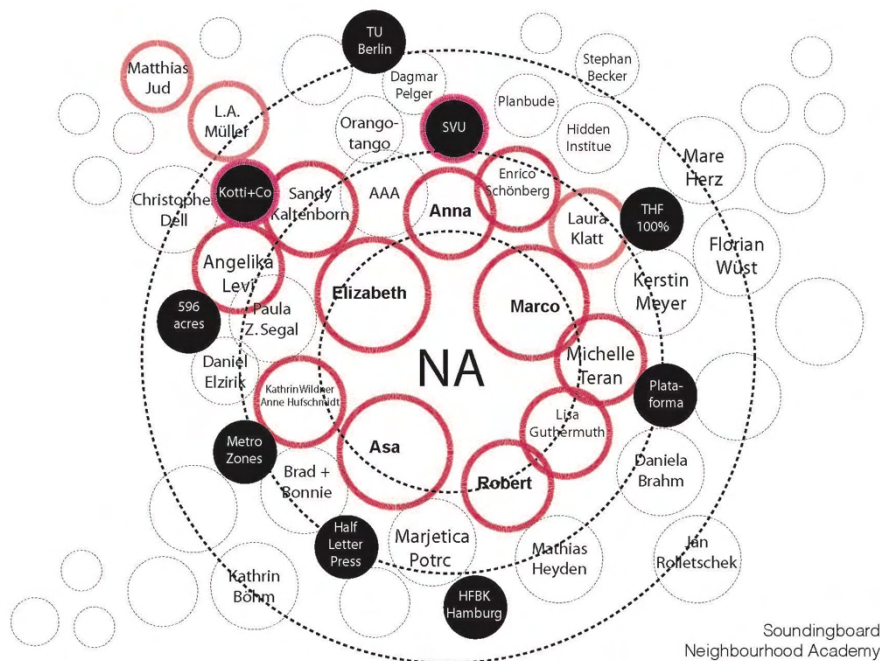


Figure 1: Stakeholders of the surrounding environment of NAK

This also provides us with the opportunity to think the application of MAZI/Berlin within a network instead of an isolated community. Exemplary initiatives, which can be integrated into the network and their current focus are:

- Bündnis Stadt von Unten⁶ (City from Below)
Location: so-called Dragona Areal; Topics: Privatization of Federal property, affordable local business, affordable studios, link to public housing, community ownership (Mietshäusersyndikat)
- Initiative Tempelhof 100⁷
Location: Tempelhof Airfield, Topics: participation, referendum, green spaces, housing for refugees
- Initiative Kotti & Co⁸
Location: Kottbusser Tor; Topics: social housing, self-organization and socially and culturally diverse neighborhoods, use of public space, re-municipalisation, solidary economy
- Initiative Bizim Kiez⁹
Location: Wrangelstraße; Topics: affordable commercial rents, re-municipalisation, use of public space for self-organization and for democratic processes, neighborhood identity

⁶ <http://stadtvonunten.de>

⁷ <http://www.thf100.de>

⁸ <http://kottiundco.net>

⁹ <http://www.bizim-kiez.de>

2.3 The Participatory Design Approach

The Design approach followed in this pilot is based on a concept described as »Design as Infrastructuring«¹⁰. This approach foresees experimentation through living labs and public interventions in order to understand and shape the opportunities for designers and technologists as well as for the results of their processes to partake in the shaping of our societies in a socially, economically and culturally sustainable way. As opposed to framing design as problem solver, the metaphor infrastructure designates the creation of possibilities, in and through which stakeholders can create their own solutions. Acknowledging the usually rather short life-span of any solution, this approach is often seen as more sustainable, since it focuses on the creating of underlying structures that enable others to actualize and use them for multiple constructions. Depending on the situation, these structures can denote virtually anything from tools, physical spaces, shared language, protocols, boundary objects¹¹. This refers to the sustainability of a project as one central problem to be considered within the discussions about Social Design: societal, political, neighborly problems can by definition never be entirely solved, as they are constantly evolving. Having durable socio-material structures in place that enable neighbours to tackle their own problems equipped with novel tools and methods can have more long-lasting and profound societal impact on a neighborhood than the solution to a concrete problem.

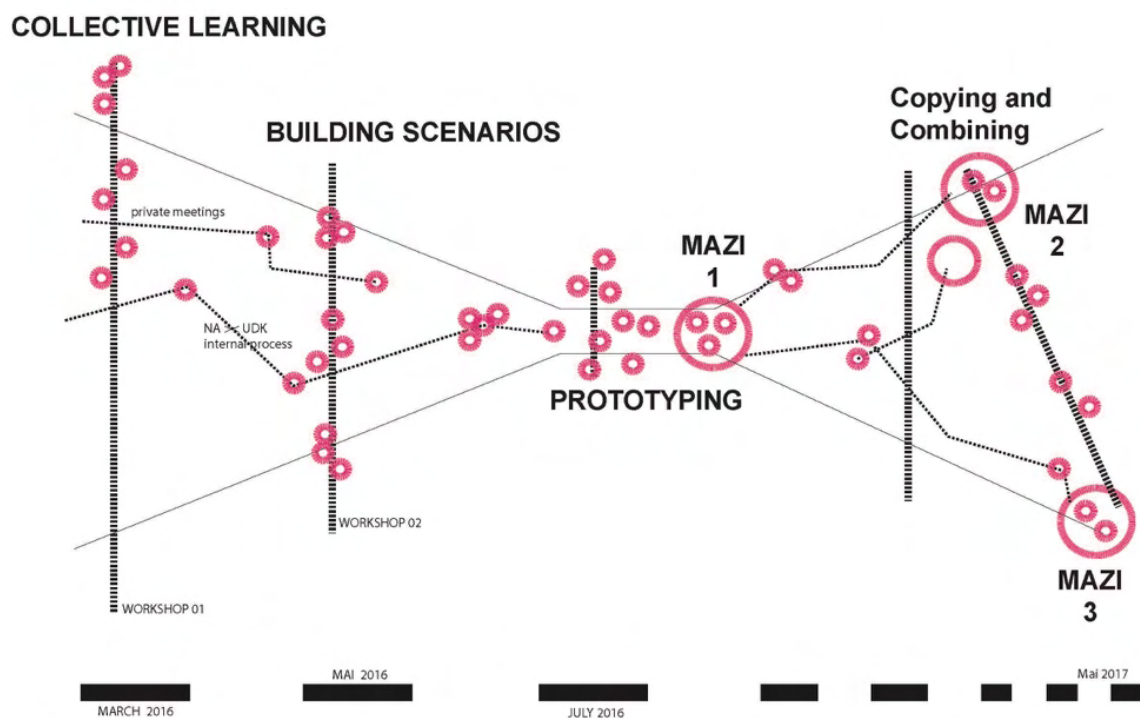


Figure 2: Perpetual Beta – the iterative process of the MAZI/Berlin pilot. We started with rather general discussions, involving many and heterogeneous stakeholders. This process has been narrowed by building scenarios and ultimately focussing on one use case within the NAK. At the time of this report, we are at the narrowest point of this pilot phase, marked in the graphic as “MAZI 1”, which depicts the first prototype that will serve as a departure point for the next phases.

Thus, the design approach in this pilot centres around the notions of a) openness, b) “tools over solutions”, and c) perpetual beta:

¹⁰ For references see for example Binder et al. 2011, Ehn 2009, Ehn 2008

¹¹ Star & Griesemer 1989

Openness in terms of adoptability: Through the different workshops and the involvement of a wide network of stakeholders in the initial ideation processes, we hope to inscribe the possibility for the MAZI-zone to be adopted, changed and appropriated by others for different contexts and means.

Hence, we look at the design process as the creation of tools instead of solutions. Whereas solutions only exist to concrete problems that, because of their solvability, tend to be less complex than the socio-political problems presented in the context of this pilot, the notion of tools allows us to focus on the design of “open usefulness” as described above.

As depicted in figure 2, we hereby follow a “perpetual beta” approach: Instead of analysing a given situation in order to create a particular response to it, we continuously create prototypes, processes and temporary solutions in order to test them against the real world. This iterative process allows us to continually learn and to ground the processes, designs and deployments in real-life needs and circumstances.

3. The Pilot Process

3.1 Stage 1: Project building / setup

In the weeks before the official project start, numerous informal meetings and open considerations in regards to the project have been conducted, which elaborated on the initial pilot outline delivered in the DoW. Departure point for this outline was the analogy of the project runtime with the remaining lease of the public land that houses the physical manifestation of our project partners: the community garden “Prinzessinnengärten”. This lease is to expire at the end of 2018, after which it is feared that the local government is prone to sell the land and thus further contribute to a series of privatization of public land in the city-state of Berlin. To question and to debate this, the partners involved in the urban garden project were planning a participatory process that aimed at sparking wide-ranging, public debates about the future use of the land in question and the general approach to public land in Berlin. Hence, the Berlin pilot of MAZI was set up in order to accompany and support this process, envisioning the use of DIY network technology for gathering, annotating, broadcasting and discussing information about the deeming privatization processes, the facilitation of public debates and the collaborative development of counter-proposals as grounds for partaking in the decision-making processes in question. Consequently, the phases foreseen for carrying out the pilot in Berlin were described in the DoW as follows:

Phase 1 – Co-Designing of MAZI framework, early lo-fi prototyping

Phase 2 – Creating and providing information base

Phase 3 – Input/Co-creating

Phase 4 – Synthesis, Expert Evaluation and Filtering

Phase 5 – Developing Scenarios / Community Academy

Phase 6 – Public Debate

Phase 7 – Evaluation and Dissemination

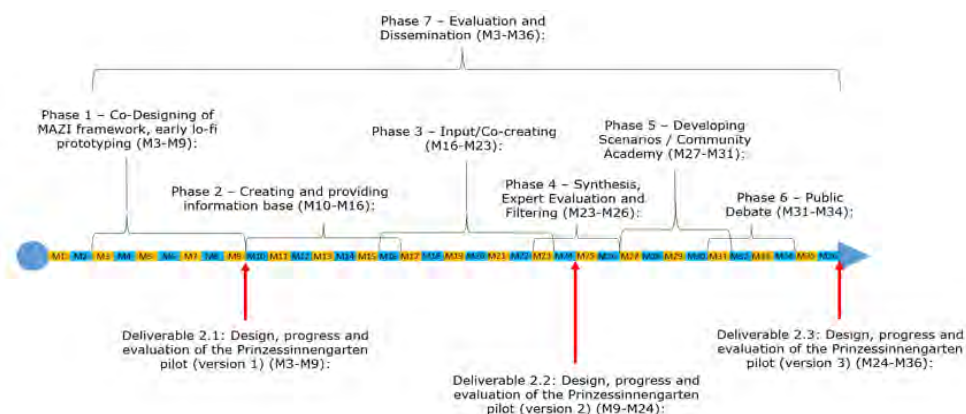


Figure 3: The phases as planned in the DoW

3.1.1 Contextual changes in the pilot setup

At the beginning of the year, however, the circumstances regarding the future of the space have changed, as the Berlin Senate has begun to enforce a new property policy, according to which all city- and borough owned lots are being “clustered” into 4 categories. Forms of future usage and marketing perspectives of previously unused or temporarily used spaces will be decided through this mechanism. The plot currently housing Prinzessinnengarten will undergo this process in the fall of 2016. The possibility for a civic participatory process, as proposed in 2012 by the community project and the Berlin district of Friedrichshain-Kreuzberg, is not foreseen in this new procedure. Against this backdrop, we decided to place the pilot on a broader base, both in order to secure the pilot’s sustainability as well as to address the overarching questions around the problem, for which the negotiations around the land housing Prinzessinnengarten is a symptom: the questions of Berlin’s urban futures as a subject to constant negotiations between the differing interests of governmental, economic and civil societal forces.

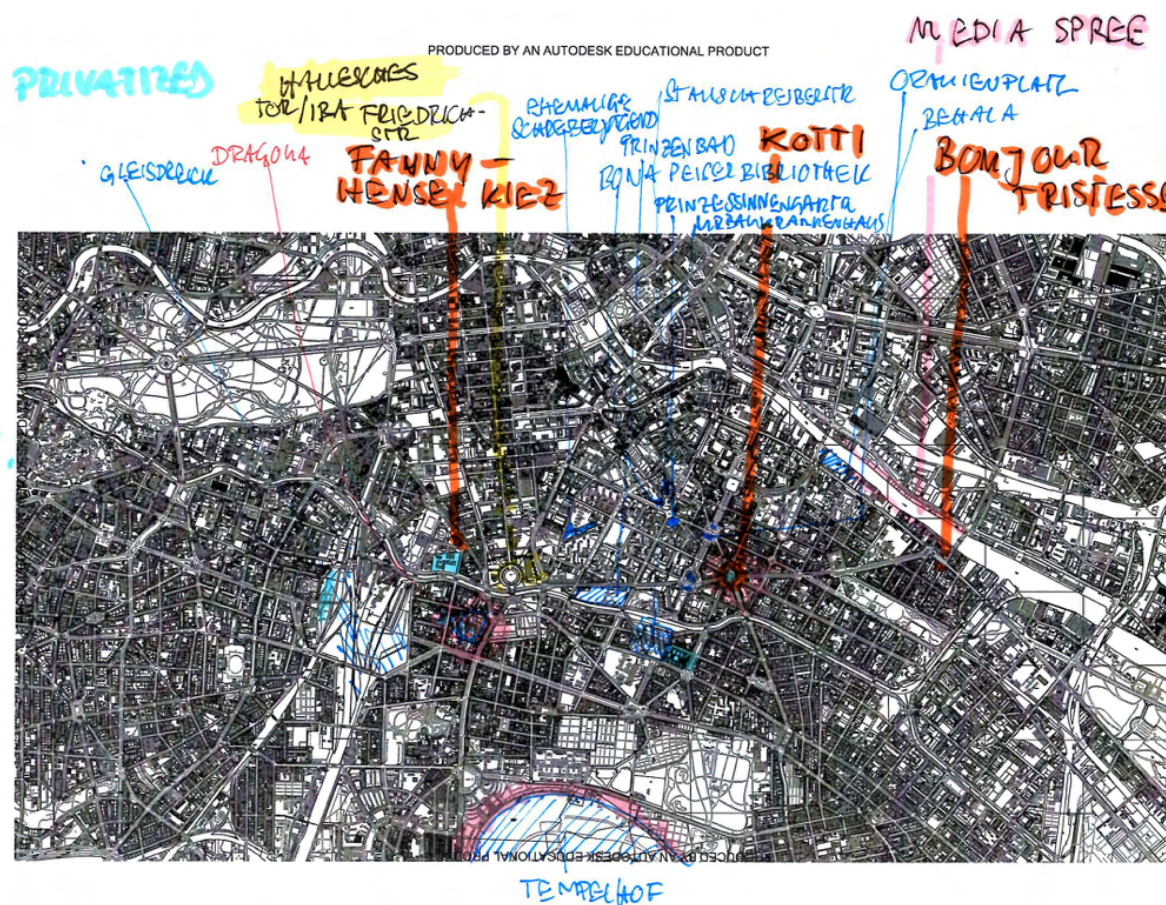


Figure 4: Contested spaces in the district of Friedrichshain-Kreuzberg

Through switching the perspective, it became clear that the questions which appeared in the community project of Prinzessinnengarten are being posed by numerous other neighborhood initiatives in the district of Berlin-Kreuzberg, which, despite their diversity, share a commitment to the bottom-up development of community-oriented spaces, linking together social, cultural and ecological aspects of our urban life.

Thus, the Berlin pilot of MAZI reframes its focus from the development of Prinzessinnengarten to the development of Kreuzberg as a social, cultural, political, economical and ecological ecosystem and asks the following question:

»In what future Kreuzberg do we want to live in? And how can we connect different actors within a neighborhood like Kreuzberg to exchange, learn from one another and articulate a common vision?«

Based on the initial pilot description included in the DoW, the pilot concept has been revised and broadened, and the initial scope has been expanded. Instead of limiting our perspective on a participatory process for one specific site, we decided to entail a wider neighborhood perspective and to include other related initiatives in our MAZI activities. The NAK inside Prinzessinnengarten hereby remains the nucleus of our pilot as well as the location where the offline network will be centrally deployed – the MAZI/Berlin network will thus manifest the “hybridization” of the NAK and strengthen it as a place of informal and collective learning, focussing on issues of urban development and neighborhood knowledge across different initiatives and neighborhoods. Consequently, the team envisioned the core of the pilot in developing, establishing and testing a MAZI framework that facilitates and supports the vivid civic discourse about socio-ecological transformation, urban and rural bonds, rights to the city and collective learning. Key questions of this discourse are, among others:

- Where and how are people and initiatives negotiating for a socially just, ecologically sustainable and culturally diverse neighborhood?
- How can the different perspectives and topics of these local negotiations come together?
- How can the MAZI –Network become an interface for exchange and interaction between initiatives, residents, politicians and public servants?

For the pilot, the collaboration it entails and its objective to synthesize the exploration of DIY networking with NAK’s work around the future use of public land as a common, the following, overarching objectives have been formed:

- Participatory prototyping of the MAZI-Toolkit in local, trans-local and neighborhood-wide processes around the bottom-up development of community-oriented and sometimes community-contested spaces; linking together social, cultural and ecological aspects of our urban life.
- Inclusion and networking with other related local initiatives and fostering synergies and cross-fertilization through common workshops and mobile MAZI installations.
- Support of locating, analysing and discussing local engagement and activism as spaces of learning (i.e. collective learning), providing a hybrid framework for knowledge generation, transfer and archiving.
- Provide an interface for contact between NAK and the surrounding neighborhood.

3.1.2 Revision of project phases

As a result, the phases as described in the DoW have been revised. The following table provides a detailed overview on the necessary revisions of the phases as well as their respective objectives.

	Description in the DOW:	Revised description:
Phase 1 Co-Designing of MAZI framework, early lo-fi prototyping	1.1) Participate in joint planning of the process and its key milestones through 3 co-design workshops (4-5 hours each) over the course of six months, by the transdisciplinary group of researchers and the owners/catalysts of the initiative.	This objective has been met as described in the following of this report.
	1.2) Generate and integrate users and other	This objective has been met as described in

(M3-M9)	stakeholders insights into: their approaches to learning informing and debating ways of dealing with novel technology, and their needs and requirements for a DIY networks, etc.	the following of this report.
	1.3) Exposing first prototypes (mock-ups, paper prototypes, storyboards etc.) to the real-life setting to inform the later phases of the pilot project.	This objective has been met/exceeded as described in the following of this report.
	1.4) Ensure the phase goes hand in hand with the wider conceptualization phase of the civic participation initiative that involves experts and practitioners from different fields, which work together with other local actors.	This objective has been met as described in the following of this report. Instead of the participatory initiative addressing the future use of a particular piece of land, the focus has been altered towards the question of how processes of participation as collective learning and social awareness can be designed, sustained and amplified. See point 2.1 for further elaboration.
	1.5) Show how work carried out has reciprocally fed into the designing of the MAZI-framework.	This objective has been met as described in the following of this report.
Phase 2 Creating and Providing Information base (M10-M16)	2.1) Focus on the public land currently housing CG in order to develop an understanding of the particular characteristics of this land: the socio/economical surroundings of the space, the history, the legal and political situation of the land, etc.	Based on the developments described in the sections above, we no longer focus on the concrete piece of land that is housing Prinzessinnengarten today. Instead, we broaden the perspective on a) public land in urban environments in general, especially taking into account the neighborhood and district scale, b) the question of the commons in urban contexts, c) structural setting needed to safeguard such spaces. d) collecting and analysing methods already in use for “communing” space by other initiatives. The public land currently housing Prinzessinnengarten hereby serves as an exemplary model case in order to develop an understanding of how a process of participation as collective learning and awareness process could be designed. Combining a deeper understanding of the socio/economical surroundings of the space, the history, the legal and political situation of the land, etc. with experiences, topics and methods of other civil society initiatives in the borough.
	2.2) Provide the ‘public’ an information base about the development and translation of the	The information base will be elaborated as planned, except with the change of focus as

	land via a MAZI node.	described above.
	2.3) Ensure the information made available through the MAZI node is comprehensible, accessible and relevant to the civic participatory process.	This objective will be worked on in the coming weeks and months.
	2.4) Work together with consortium to make sure the MAZI-Toolkit will: <ul style="list-style-type: none"> be the interactive hub for the 'public' to access, develop, annotate and discuss this information. provide access to a closed network with literature, films, pods that are pertinent to the process (Deliverable M16: Information Base Live). 	This objective will be worked on in the coming weeks and months.
	2.5) In 2015 a physical MAZI-Artefact will be built in in or on the "Gartenwerkstadt" to harbour the Community Academy – Prinzessinnengarten and act as an architecture that will provide an open platform for urban and rural research, art and activism.	We started prototyping the physical representations of the MAZI zone of NAK and will continue this process in the next phases.
	2.6) The Academy will be an important catalyst not only for MAZI, since it will integrate its tools within their practice, but will also be the central collaboration platform for the civic participatory process.	The information base will be elaborated as planned, except with the change of focus as described above.
Phase 3 Input/ Co-creating (M16-M23)	3.1) Structured around three Workshops (2 days each), we will: <ul style="list-style-type: none"> introduce and test several formats that open the debate to the public and initiate the collaborative creation of ideas about what can happen on this piece of land. 	Structured around three Workshops (2 days each), we will: <ul style="list-style-type: none"> introduce and test several formats that open the debate to the public and the network of actors and the broader civil society discussion initiate the collaborative creation of ideas and structural scenarios of how spaces can be governed through commoning.
	3.2) Use the three Workshops as an opportunity to ask neighbours, organizations and other actors to the site to interact with and around the MAZI node to form and articulate their perspectives, visions and questions on the topic.	Will be elaborated as planned, except with the change of focus as described above.
	3.3) To tie the inputs from the Workshop participants directly into the design of this respective MAZI application	Will be elaborated as planned, except with the change of focus as described above.

	3.4) Use the three Workshops as introductory events to the MAZI zone that will be usable without framing workshops from this moment on.	Will be elaborated as planned, except with the change of focus as described above.
	3.5) Ensure that each of these workshops provide new input regarding <ul style="list-style-type: none"> possible futures of the garden, and serve as iteration process for the development of MAZI 	Ensure that each of these workshops provide new input regarding <ul style="list-style-type: none"> commoning of land use and structural needs for safeguarding these spaces beyond temporary use, and serve as iteration process for the development of MAZI
Phase 4 Synthesis, Expert Evaluation and Filtering (M23-M26)	4.1) Deduce and filter the material generated through MAZI and the accompanying co-creation processes by involving experts in different and relevant fields.	Will be elaborated as planned, except with the change of focus as described above.
	4.2) Ensure the outcome of the process results in a categorized and informed catalogue of needs and uses regarding the space.	Will be elaborated as planned, except with the change of focus as described above.
	4.3) Ensure the MAZI application facilitates the catalogue to serve as the base with which stakeholders together with all project partners and users co-create future narratives and ideas for the site.	Will be elaborated as planned, except with the change of focus as described above. Ensure the MAZI application facilitates the catalogue to serve as the base with which stakeholders together with all project partners and users co-create future narratives and ideas for the spaces on commoning.
Phase 5 Developing Scenarios / Community Academy (M27-M31)	5.1) The Community Academy will focus its curriculum on developing scenarios on the basis of the information catalogue produced before.	Will be elaborated as planned, except with the change of focus as described above.
	5.2) Through the Academy, practitioners, artists and researchers with interdisciplinary residencies (ensured by the high profile of Prinzessinnengarten as a case for these projects and the like) will focus on developing proposals and scenarios for the future of the site.	5.2) Due to the development of the NAK's curricula, structures and processes, the residencies have to be determined in the process. The work however a central part of the post-production of the workshops.
	5.3) Demonstrate that the residencies are working directly with and through MAZI.	5.3. Demonstrate that the guest visitors and lecturers are working directly with and through MAZI.
	5.4) The elaborated concepts will be publicly displayed through MAZI and the application will provide visitors, actors (such as owners,	Will be elaborated as planned, except with the change of focus as described above.

	activists, neighbours and city authorities) with the possibility to annotate and discuss the concepts on the platform.	
	5.5) The CG MAZI zone will be designed in order to be mobile.	Will be elaborated as planned, except with the change of focus as described above.
	5.6) Enable the community partner to carry out workshops as well as to involve different publics in several parts of the city.	This has to be decided upon further along in the process.
Phase 6 Public Debate (M31-M34)	6.1) Generate interactive discussion with the public through the development of scenarios through the NAK.	The project is in constant production of public conversation through the public events, workshops and presentations. Therefore, this will be an ongoing part of the project and interactive use will be tested throughout the project period.
	6.2) The Academy-Residents (researchers, artist, and practitioners from around the world) will be partnered up with local counterparts to work in the garden.	Will be elaborated as proposed, but in a more local manner than initially planned.
	6.3) The Academy-Residents (researchers, artist, and practitioners from around the world) will regularly feed into the public debate and discourse through their work, their representation in the virtual and physical space and their interaction with the community.	6.3) The Academy-Residents or local experts (researchers, artist, and practitioners on the subjects of commoning) will regularly feed into the public debate and discourse through their work, their representation in the virtual and physical space and their interaction with the community.
	6.4) The MAZI nod will serve as a working tool, a means for communication and as a living archive of the debate that disseminates its contents to the community and the surrounding neighbourhood	Will be elaborated as planned
Phase 7 Evaluation and Dissemination (M3-M36)	7.1) The evaluation of the pilot through qualitative research, interviews will be undertaken throughout the process (described in the earlier phases).	Will be elaborated as planned
	7.2) After each phase, findings and feedbacks will be analysed, documented and fed back into the project design.	Will be elaborated as planned
	7.3) The different stages of the project will be reflected on and communicated through articles, papers and conference lectures.	Will be elaborated as planned

	<p>7.4) MAZI will conclude in</p> <ul style="list-style-type: none"> • an exhibition showcasing the process and its result to the public on the premises of Prinzessinnengarten, • the release of open source material on building and maintaining similar MAZI applications and • the development of a written report that serves as an official report and guidance for city authorities. 	<p>Will be elaborated as planned, specification of c) the development of a catalogue to serve as the base with which stakeholders together with all project partners and users co-create future narratives and ideas for the spaces on commoning.</p>
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3.2 Excursus: Polylogue

In parallel to the work of setting up and conceptualizing the pilot work, the UdK-Team started experimenting with different formats of designed interactions between users and offline networks. In this course, we were invited to create an installation for the 2016 edition of the Berlin media arts festival *Transmediale* and its workshop "off-the-cloud", which has been described in Deliverable 3.2 as follows:

»The "off-the-cloud zone" was a hybrid daylong event, Saturday February 6 2016, placing the DIY networking in the middle of the discussion space¹². The festival accommodated this event in its 'conversationpiece' section¹³; it was organized and moderated by Panayotis Antoniadis, Daphne Dragona, and James Stevens, and planned as a working group meeting open to the public. The event gathered 25 invited speakers and more than 300 people in the public. The "off-the-cloud zone" activity was divided in three main slots including a discussion/workshop session, a session dedicated to talks and presentations, scheduled in the middle of the day, and a panel discussion with vivid interactions with the large evening audience¹⁴«.



Figure 5: Discussions at the Off-the-cloud-zone at Transmediale 2016

¹² <https://2016.transmediale.de/content/off-the-cloud-zone>

¹³ <http://www.furtherfield.org/features/review-transmediale-2016-necessary-conversations>

¹⁴ Deliverable 3.2, p.20: http://www.mazizone.eu/wp-content/uploads/2016/07/MAZI_D3.2-DIY-networking-as-boundary-object-v1.pdf

In this context, we developed, built and showcased “Polylogue”, an experimental take on the MAZI-zone: „Polylogue“¹⁵ consists of an arrangement of artefacts (two wall-mounted boxes with paper running in-between them) and a locally constrained Wi-Fi network, which provides the access point (splash-page) through which users can send text messages via their mobile devices. The messages are printed immediately on a paper roll that runs in-between the two translucent, black boxes. „Polylogue“¹⁶ offers a physical experience analogue to apps like Snapchat and thus serves as a antithesis to the internet’s „eternal memory“, as the messages and their relationships only exist situational.

Unlike digital messages, which often travel for thousands of kilometres, messages submitted to Polylogue travel exactly 2m until reaching their final destination. It depends on the density of conversations how long it takes for a message to get from one box to the other to then get destroyed: The more and the faster visitors feed the installation, the more short-lived a single message becomes.



Figure 5: A still image of the video documentation of Polylogue



Figure 6: Installation view Transmediale



Figure 7: Installation view Platine Festival Cologne

Since its initial appearance at Transmediale 2016, Polylogue has been showcased at the CAPS Meeting/Brussels in May 2016, at Platine Festival 2016 in Cologne (August 2016). It will be exhibited at Speculum Artium¹⁷ in

¹⁵ <http://www.design-research-lab.org/projects/polyloge-1/>

¹⁶ <https://vimeo.com/158835693>

¹⁷ <http://speculumartium.si/?p=1600&lang=en>

Trbovlje, Slovenia in October 2016 as well as at the Radical Networks conference in Brooklyn, NY in November 2016.

3.2.1 Technical details

Polylogue was built mainly out of Open Source and Open Hardware Components. Similar to other projects realized by the UdK-team, we used a TP-Link MR3020 with OpenWRT installed for creating a WIFI-Hotspot. The Router was configured, so that any HTTP request on port 80 would be redirected to a local address. A Raspberry PI was used for serving Polylogue's Web Application as well as for interfacing the Thermal Printer, which contains a Paper Roll up to 50m of length. We implemented a simple print server queue in Python which would save the submitted messages until they were printed out on the paper roll. All these components were built into a semi translucent black box, positioned on the right-hand side of the installation. The box on the left contained a self-constructed mechanism to measure the tension of the paper display in between the two boxes and an Arduino controlled, hacked paper-shredder. All the code, as well as laser cut sketches, can be found on Github¹⁸.

3.3 Stage 2: Identity building / Community outreach / Ideation

In order to work towards the objectives set in the stages as described above, it became clear that the active involvement of actors outside the initially envisioned stakeholder environment is central, e.g. the neighbouring initiatives "Kotti & Co"¹⁹ and the initiative "City from below"²⁰.

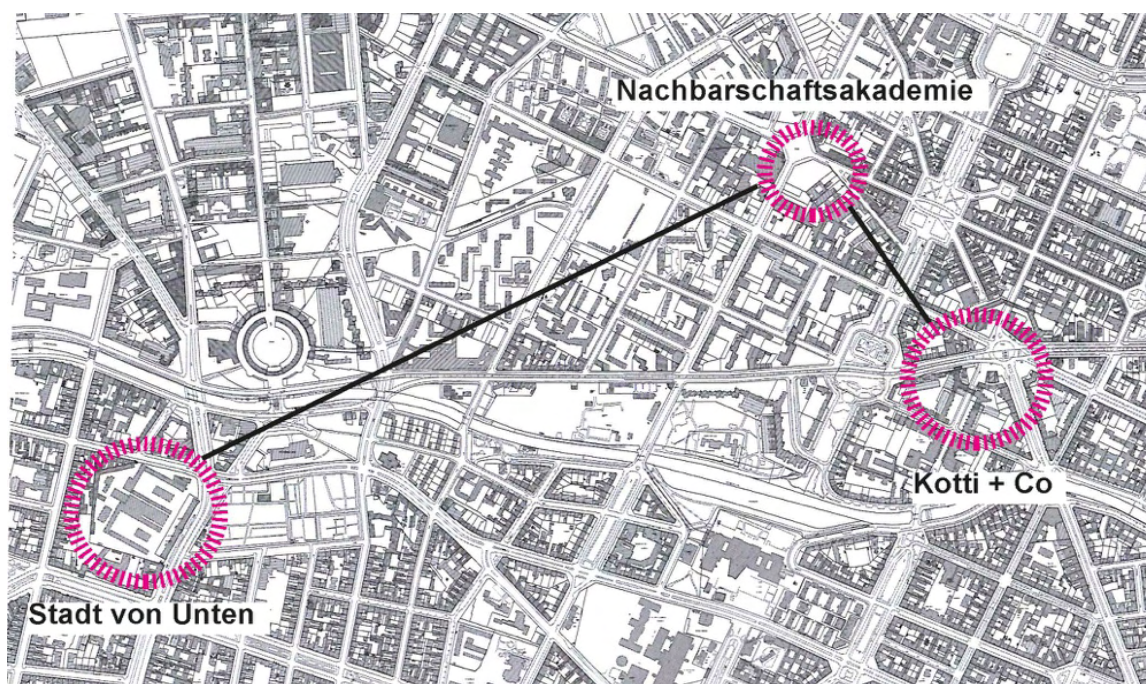


Figure 8: Physical proximity of 3 highly related initiatives in Berlin-Kreuzberg

One central characteristic of NAK, and thus paramount for the collaboration, is its intertwined nature: NAK cannot be conceptualized as isolated from the political environment it exists in and understands itself as an interface or triangulator for and within the landscape of political initiatives in Berlin. This presented us with the

¹⁸ <https://github.com/lutzer/polylogue>

¹⁹ <https://kottiundco.net/english>

²⁰ <http://stadtvonunten.de>

necessity to reach out to the respective communities, to establish relationships and trust and to initiate interest in the project. Hence, this stage concentrated on transferring the contents and objectives of MAZI into different circles that, at this time, were solely connected to individual partners on a personal level, but not in terms of institutionalized collaborations. For this, the Berlin team conceptualized and conducted two consecutive workshops, which will be outlined and discussed in the following.

3.3.1 Workshop I (21.03.2016)

This first, 6-hour long workshop was an internal meeting with artists, experts and members of the different initiatives in Berlin. The goal was to facilitate a first contact between participants/initiatives, and to introduce MAZI as a project, as a range of possibilities and as a potential tool within the NAK's Summer Program 2016, with the agenda to conceptualize it for a long term use both within the NAK as well as for the cooperating initiatives and artists.



Figure 9: Brainstorming in groups

To initiate these discussions, we decided to introduce the technological aspects of our endeavour very slowly, and to initially focus on developing a common understanding of objectives and concepts. Framed through the notion/NAK's pedagogical principle "Collective Learning", a series of discussions brought first insights into common concepts, issues and needs among the initiatives. By discussing collective learning as the connecting practice of the initiatives, we defined the main realms of knowledge production within the structures of the participant's work as following:

- the construction and deconstruction of narratives
- making operational structures in the politics around us visible
- understanding the self as part of political narrative
- and understanding and developing internal operational structures

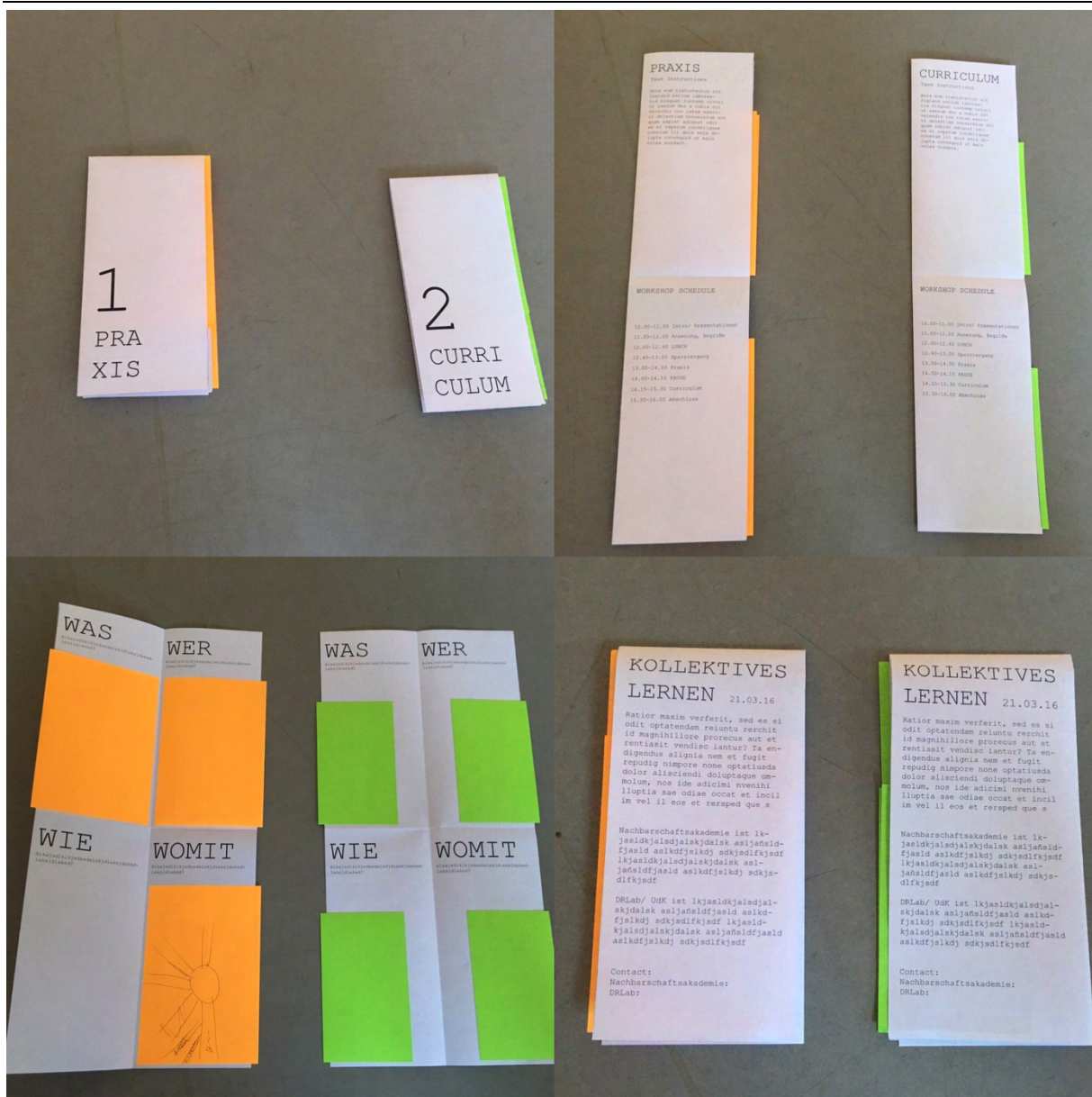


Figure 10: A probe-like tool used to structure brainstorming processes

The main part of the workshop developed as a series of open discussions with all the participants. The first step was the definition of the term *Collective Learning* itself, followed by its understanding under four categories proposed by the organising team, namely a) Content/Knowledge, b) Formats/Methods, c) Roles/Actors, and d) Material/Structure.

This setup sparked rich conversations within and beyond the proposed categories. Discussions ranged from very basal negotiations of terms such as collectivity, scalability, self-understanding or knowledge via different definitions of roles, and within relevant processes and conversations about strategies, artefacts and the use of language in framing the participant's processes as examples of collective learning.



Figure 11: Mapping the outcomes of the first workshop

The results of this workshop helped us to both highlight the learning-aspects of community work and political activism in general, as well as to create a common understanding of NAK's work as an academy and the work being done within the initiatives themselves in particular. Furthermore, they helped in developing common ideas, needs and questions between the participants on the nexus of the city, the commons and the digital, and thus provided us with the base for introducing discourses on the concrete possibilities of a MAZI prototype in the following, second workshop.

3.3.2 Workshop II (20.05.2016)

The second workshop aimed at introducing the technological aspects of the project to the discussion, and to open the discourse about DIY-Networks. For this, we invited some of the participants of the previous session to collaboratively imagine the possibilities of a MAZI prototype within the case-study of three different initiatives: City from Below, Kotti & Co and the NAK. At the beginning, the UdK-team presented a series of prototypes that illustrate the possible span for applications to be imagined: The Hybrid Letterbox²¹, Polylogue, a Raspberry Pi 3 providing a "stupid forum"²², and a setup of a Raspberry Pi and a TP-Link Wi-Fi router providing access to a locally hosted Owncloud²³ server. The first half of the workshop thus consisted of discussions about the works, hands-on demonstrations and conversations about analogies and differences between FLOSS-movements and the values of the various right-to-the-city movements present.

Following that, a concentrated work session unfolded, in which three groups of participants first brainstormed, discussed and formulated needs, wishes and desires out of their own practice on an operative level, and then attempted to match these needs with potentialities, speculating freely about possible functions, scenarios and roles a MAZI prototype could provide, how would it look like, etc.

²¹ <http://www.design-research-lab.org/projects/hybrid-letter-box/>

²² <http://stupidforum.com>

²³ <http://www.owncloud.org>



Figure 12: Ideation of possible MAZI use cases with actors from the initiative “Stadt von Unten”

For this, a series of probes were produced and given to each group to work with. They served as boundary objects during the workshop to bring about and conduct the discussion along the different phases, and to collect the content of it for its documentation afterwards.



Figure 13: In the first phase (left picture), the groups identified problem fields, needs or interests that the initiatives would like to target, and wrote them on a plain dodecahedron provided to each of the groups. In the next phase (right picture) a second dodecahedron was given to each of the three groups, this time with figures on its faces, providing pictograms with abstract prompts to approach the identified needs. Through a playful way of combining the two artefacts (they were treated like dice, always bringing upon new combinations to think about), the participants would review the previously discussed points, imagining what would they bring up if tackled through different schemes.

The ideas that emerged were collected into a panel which would afterwards be shared with the other groups. We hereby used a very open and abstract notion of “tools” – exemplary fields of exploration included:

- Tools for the communication of content, material and identities to the public, but also internally
- Tools to make hidden processes visible
- Tools with organisational/administrative purposes (coordination of room usage, etc.)
- Tools for research purposes (e.g. surveys, etc.)
- Tools for collective imagination and speculation
- Tools for assisting with language difficulties
- Tools for disseminating knowledge

3.3.3 Conclusion on stage 2

Political/value-based analogies between the project's and the initiative's objectives

First and foremost, all involved parties understand the politics inherent to the development, use and distribution of technology as a profoundly urban topic, as we navigate, communicate, envision futures through

and by data, and are constantly producing the data that in turn co-shapes the virtual, but also the social and the built environment. Hence, discussions around the implications of this framing appeared highly productive. The increase in technological mediations of urban life was the nucleus on which we were able to develop mutual interest and understanding: while the “right-to-the-city” discourse asks about the accessibility and openness for individuals and groups to partake in the production of the urban, the topics under discussion in MAZI provide perspectives on very similar logics around the normativity of technological developments, that shape countless aspects of our lives. While solely market-driven development of technology by definition has to adhere to market logics (and thus only produces tech that has a market) – and hence appears analogue to, for example, investor-driven developments in cities – MAZI envisions technological innovations, that are grounded in a) the participatory design paradigm, b) real use cases of real communities, and c) open source dissemination logics, that do not aim at determining the definite use of the developments.

To further work on these intersections collaboratively as a highly interdisciplinary project team promises to enrich the relevant discourses within and beyond the boundaries of the different communities, and therefore to raise awareness and build capacities around the topic of DIY networks, ownership of technology/data, and self-organized digital networks as an additional layer for discussions around the right to the city.

3.4 Stage 3: Concept Building

The two consecutive workshops generated a rich body of material to draw from in the following processes. Throughout these encounters, discussions and collaborations however, we continuously emphasized that we are not to try to incorporate every concept sketch that emerged from these sessions, but to incorporate their possibility in the following design work, to enable the eventual appropriation of concepts, prototypes and processes beyond the use cases initially envisioned in their design (see 2.3 The Participatory Design Approach).

Consequently, we withdrew from conversations with the broader stakeholder community of the workshop contexts, and conducted co-design sessions with the core team, consisting of UdK and NAK. By focussing on the needs, processes and structures of the NAK as the design case, the team proceeded on the idea of NAK as an interface, as a home-base for learning across the different experiences and knowledge present in the wider landscape of urban initiatives in Berlin.

The concrete departure point for the conceptualization of the prototype realized at the end of this phase was the particular challenge of transferring knowledge, faced by the actors of NAK: it is usually the core protagonists who are present at NAK’s events, travel in their functions as coordinators and have regular encounters with other individuals and groups they deem as relevant and interesting for the body of content that is continuously being created by the NAK. The challenge for them hereby lies in transporting the knowledge and the discourses generated in these encounters into the NAK, to set it into relation with prior encounters and to make this knowledge accessible and workable.



Figure 15: Examples of situational knowledge production within and around processes of NAK

Hence, the problem defined to be tackled by the pilot team was the question of how to “common” the discourses generated by a handful of key personnel – how to offer ways of interacting with a growing body of knowledge and how to build epistemological bridges between different initiatives and actors working on decisively different, yet fundamentally interconnected issues and could benefit greatly from novel ways of sharing experiences.

As a result of these co-design sessions, we conceptualized a living sound archive, a local library that was envisioned to store, display and to provide access to the bespoke contents. Looking at the impossibility to simply “catch” or “store” conversations as they happen in an often unforeseen and unpredictable way, we made two central decisions: a) to work with interviews that members of NAK would conduct in a half-standardized manner *after* having had encounters that they deemed relevant for storing, and b) to work with audio files as the central medium, accompanied by a short description and photo of the interviewee.

The concepts thus gave shape to a tool that simultaneously serves the need to document, but also to publish knowledge as it is getting generated, aiming at the already mentioned problem of making the knowledge resulting in individual experiences a common good. Furthermore, we aimed at creating a tool that has the capability of making visible both the local network of initiatives and other relevant stakeholders, as well as the “global neighborhood” of NAK and its actors. Hence, the ideation, conceptualization and the later implementation of the first, prototypical iteration of this particular MAZI-zone oscillated – and still is oscillating between two approaches to its design: a) as an internal tool for the NAK, and b) as an interface for and to publics outside the NAK (broadcasting).



Knowledge/Power/Responsibility „sticks“ with key actors:

How to common this?

Figure 16: Some of the main protagonists of the NAK

The opportunity to design a custom application for these objectives seemed highly appealing to NAK, and even more so in its framing as an “offline” network, meaning as only accessible for those that are physically present at the Prinzessinnengarten and thus at the “Laube”, the physical manifestation of the NAK. This has several reasons:

- It strengthens the actual space as a place of learning
- It connects the content available in the archive with an archetype of alternative development and a lively civic public within Berlin
- It protects the content against uncontrolled distribution in the internet
- It makes the archive a very specifically curated collection of information that, in comparison to providing it online, does not compete against the “noise” of information overload

3.4 Stage 4: Prototyping

Conceptualized as a living and growing library, the prototyping phase aimed at simultaneously designing the production/collection of knowledge, as well as its reproduction/consume. Furthermore, the interaction between people and the particular knowledge of the archive was understood in two dimensions: the digital and the physical. The goal therefore was to design a tool that would help to collect the knowledge and a hybrid platform for people to interact with it.

For this, we concentrated on three distinct situations: a) the generation of interviews, b) the design of the archive as the place for visitors to interact with the interviews, and c) future paths to deal with the content (e.g. to physically materialize the contents of the archive and different ways for users to interact with it).

3.4.1 Generation of Interviews

Informal, unplanned and highly diverse forms of conversations with unpredictable content, duration and processes are at the heart of the concept, which aims at distilling the knowledge generated in these interactions. Hence, it appeared necessary to think the actual act of interviewing as a ritual, something that has a distinct protocol as a way to conclude encounters, to reflect conversations that were conducted unplanned, un-orchestrated and undocumented. Consequently, the designed process foresees the redirection, narrowing, reduction of a discourse onto a set of perspectives developed by NAK.

By redirecting a virtually endless variety of conversations towards a semi-fixed structure provides the possibility of compatibility, but it simultaneously limits and artificially narrows the discursive width to be documented. For the first prototype, the NAK partners therefore temporarily decided on a set of six questions that were deemed representative to the variety of discourses and negotiations cultivated under the umbrella of NAK:

1. What topics are you interested in and/or working with?
2. What is the strongest tool/method/practice you work with?
3. What public/shared/open space in your city do you love?
4. Describe a context/conversation/situation that you have been part of, that you were satisfied with.
5. What was your biggest insight in the time we have spent together?
6. What problems would you like to solve next?

At the heart of the interviewing process is a mobile application²⁴, guiding the interviewer through the process (see figure 17, starting from top left screenshot):

1. A new interview gets started:
2. Name and short description of roles (e.g. artist, urbanist, etc.) are being entered.
3. The next step displays the catalogue of questions: The interviewer can either work her or his way from top to bottom, or choose any random question to start/proceed with.
4. The answer to the chosen question is being recorded
5. The interview can add tags to the answer and thus indicate the topics/issues under discussion in the respective answer
6. After the interview, a brief synopsis can be added to the dataset

Upon concluding the interview, the dataset gets uploaded to the database automatically, given that the device is connected to the Wi-Fi provided by the Hardware.

²⁴ The prototype of the interviewing-tool is currently developed for iOS; as the interviewers all use iPads in their daily work. As a next step, a more open and freely installable version for Android systems will be developed.

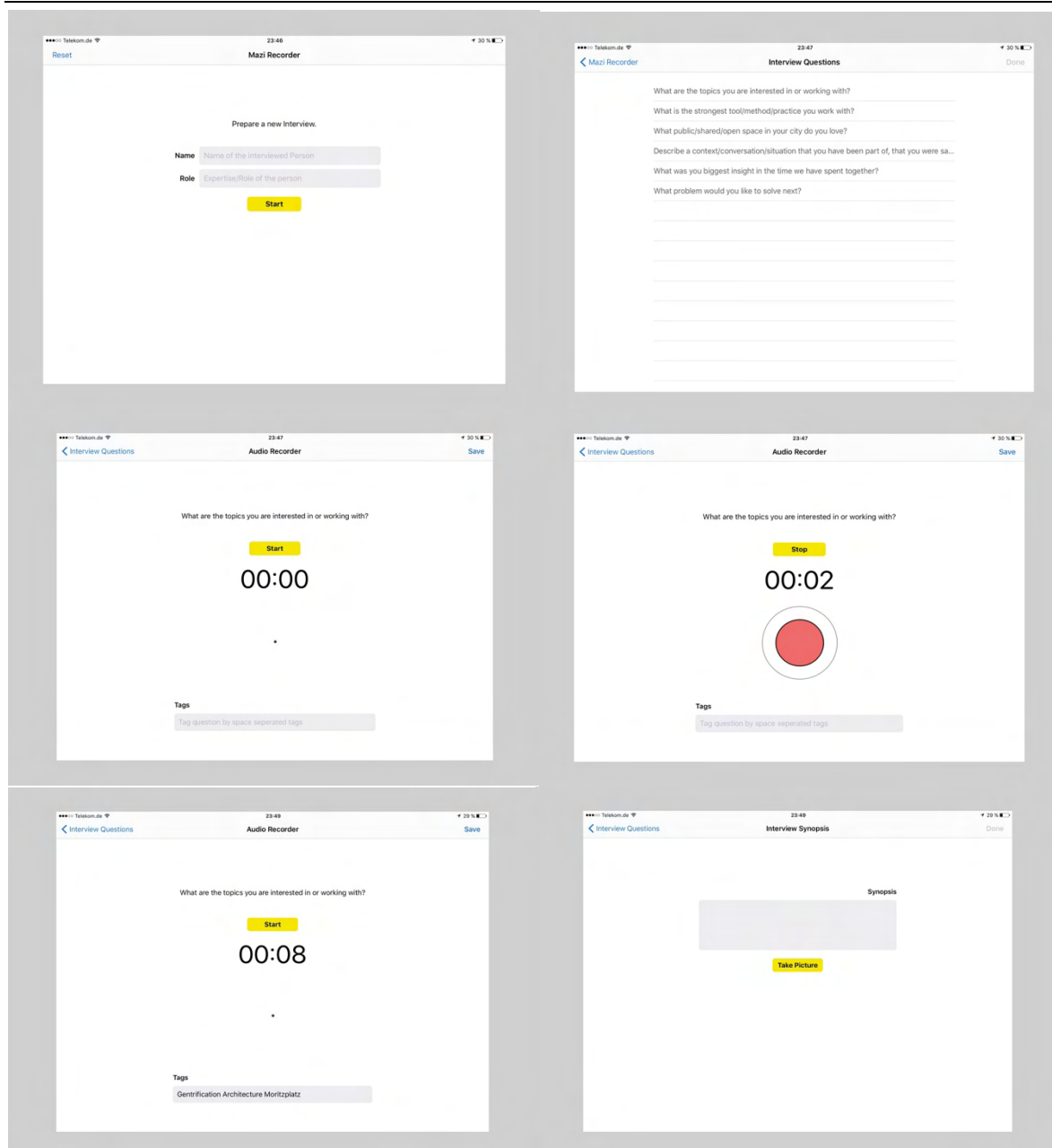


Figure 17: The process of conducting an interview with the mobile application tool

In order to start thinking the interview as a situation that can be ritualized, we experimented with different components towards the staging of the conversation and its performativity.

After the informal encounter with the interviewee, the interviewer would invite him or her to sit on a table staged with a deliberately formal interview set up. A distinct artefact, the “MAZI Recorder”, bridges between the physical staging of the conversation and its digital recording. For the first prototype, we mounted an iPad into a frame consisting of multiplex wood and an acrylic front. We chose a gooseneck microphone, which was connected to the Pad through a battery-powered preamp (see figure 18). The goal hereby was to create a situation as distinct as possible, in order to evoke the experience of concentration and conclusion in regards to the prior conversation (figure 19). To further strengthen this, we introduced a black, waxed tablecloth, on which the interviewer would write her or his notes during the process. The tablecloth balances the sobriety of a

conducted interview, giving the participant a space of improvisation and a counterpart to the spoken reflection. Additionally, the tablecloth was intended to be used for the recording and display the historicity of prior conversations through the traces left behind on the fabric (figure 20).



Figure 18: The recorder device/prototype 1



Figure 19: An interview situation



Figure 20: The tablecloth after some interviews

3.4.2 The archive

The centrepiece of the prototype, as well as its access point for visitors and users outside the NAK is the “archive”. A digital platform to collect and disseminate content, it serves at the same time as a condensator of thoughts relevant to the practices around the NAK and as a potential space for discussion and participation.

It is hosted on a hardware setup consisting of a Raspberry Pi 3 (with a 16GB SD-Card), TP-Link TL-MR3020 Wi-Fi Router and an Anker Battery Pack (see figure 21). The router supplies an open Wi-Fi with the SSID “MAZI Archive”, which serves both for the data to be submitted by the recorder-application as well as an access point for users to interact with the content.



Figure 21: The hardware-setup of the first prototype: A battery pack, a Raspberry Pi and a Wi-Fi router. The compact setup was helpful in demonstrating the versatility of this technological approach to setting up DIY networks

For the interaction design of the prototype, we conceptualized a fragmentation of the content for the sake of flexibility for the user to co-curate the content. We hereby discern between two different stages of curation: the actual creation of the material and the arrangement of it (see figure 22).

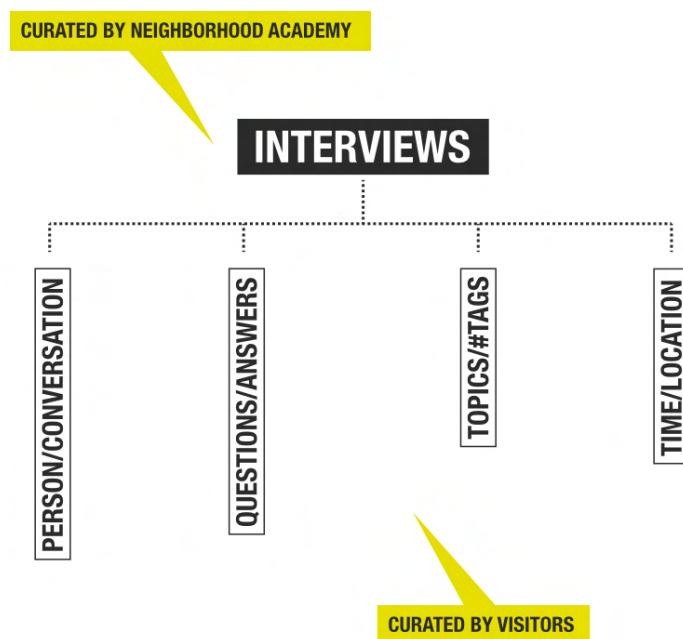


Figure 22: Two levels of curation

On the first level, the active members of NAK are the only users with administrative rights at the moment²⁵. They decide about which person to interview, which questions to ask, etc. On a second level, the goal was to enable users to re-arrange the content created in four different ways:

1. They can go from interview to interview, hence listening to the whole story of one person (see figure 24)
2. Order the content along questions, e.g. for comparison along one special interest (not yet implemented)
3. Search for content related to very specific topics by arranging the content along the tags (see figure 25)
4. Order content by time and location, a feature that seems relevant when thinking about the prototype as an “archive”, hence as a body of knowledge that may once be of historical interest

²⁵ We are thinking about various ways to open this process for other users for the next iteration of the prototype.

MAZI ARCHIVE

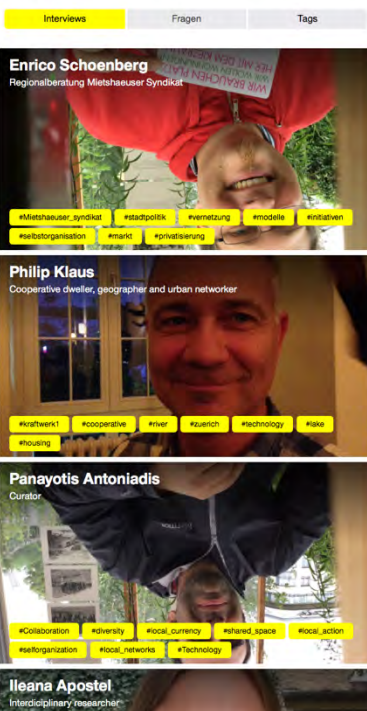


Figure 23: The different interviews

MAZI ARCHIVE

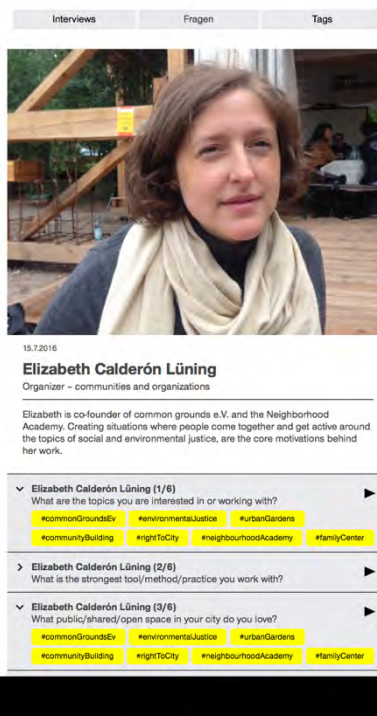


Figure 24: One interview, various questions

MAZI ARCHIVE

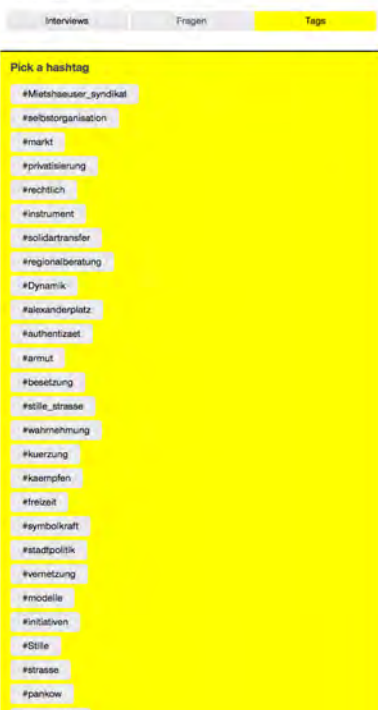


Figure 25: Topics function as filters

MAZI ARCHIVE

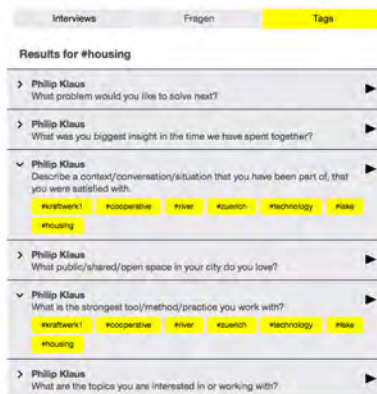


Figure 26: Results for filter #housing

3.4.3 Technical details²⁶

The recorder-application was rapidly prototyped on an iPad, written in Native SWIFT. The server, which runs on the Raspberry PI is written with the *express* framework for node.js. It reveals the uploaded interviews via a RESTful API and Websocket connection to the Frontend. This modular structure decouples the Frontend entirely from the server thus allowing to easily exchange and modify the frontend. The current version of the Frontend is written using the backbone.js framework, which dynamically reacts on data changes through a Websocket connection. The recordings are saved as raw uncompressed WAV Files, which can be played back in any common browser without any format conversion.

3.4.4 Physical representations: first ideas and future plans

The physical dimension of the prototype was envisioned to help give a spatial quality to the knowledge gathered, and also to invite people to access it – creating a moment and a place for interactions between them and with the space around them. Thinking the MAZI zone as “hybrid” would, so our rationale, further help to support the spatial importance of the NAK in the Prinzessinnengarten as a political project.

The first formal application of the prototype was thought as an installation in the “Laube”. The Laube²⁷ (“The Arbour”) is a three-story structure, developed by the NAK together with Fatkoehl Architects, and constructed by volunteers, students and apprentices in a DIY-process during the spring/summer of 2016. It serves as a space for workshops, film-screenings and discussions. Due to its relevance as a functional and symbolic place in the garden, it was chosen as the first scenario for the physical formalization of the MAZI prototype.

On an early stage of the prototyping, the installation was thought of as a station to interact with the content generated and also as a visual artefact that would call the attention to the invisible, digital dimension.



Figure 27: Different approaches to visualize the content of the archive as part of the structure of the “Laube”

²⁶ The Source Code for the webserver can be found under <https://github.com/lutzer/mazi-princess>; The recording app is hosted under <https://github.com/erwald/MaziRecorder>

²⁷ <http://prinzessinnengarten.net/die-laube-im-prinzessinnengarten/>

The latest version of the physical station was implemented as a sound installation for the public event held in Prinzessinnengarten in July 2016. A series of six wooden sound boxes were hanged playfully around the structure, reproducing excerpts from each of the six questions of the first interviews made with the MAZI tool, providing an alternative interface to the content by inviting people to listen and interact with them.



Figure 28: The sound installation as presented at the public event on July 15th 2016

3.5 Stage 5: First Deployment

The last stage of the pilot's initial phase entails the public presentation and discussion of the prototype. The consortial meeting that took place in Berlin on the 14th of July 2016, followed by the first public event of MAZI held on July 15th in Prinzessinnengarten brought together all partners of the MAZI project, therefore constituting an appropriate field to present the current development of the prototype to the public, while testing it for the first time within and beyond the core team.

The public event was organized by UdK's Design Research Lab and the NAK and took place in the Prinzessinnengärten. We invited the participants from the previous workshops as well as all the partners from the MAZI consortium as well as a several external actors to participate in a third workshop, finishing with an event open to the general public.

Under the framing of "MAZI: Between digital commons, urban struggles and local self-organization", the event hosted a discussion around DIY-networks that intended to go beyond the ecosystem of MAZI and address a greater public. The main objectives of this event were therefore, on the one hand, to present the MAZI project to a wider audience and publicly discuss relevant topics around the project's objectives, and on the other hand to connect and exchange ideas between MAZI partners and local initiatives and relevant actors.



Figure 29: A scene of the workshop situation as part of the event on July 15th 2016

The day was divided into three blocks:

1. Semi-public working session in the form of three round tables regarding:
 - a. Ownership, Privatization and self-organization in urban and technological spaces
 - b. Publics, Creative Practice and Technology
 - c. Inclusion, Exclusion, Enablement
2. Three panel discussions with representatives of each of the round tables and an open audience:
 - a. Digital Commons + Interdisciplinary Reflection
 - b. Civil Society and ITCs + Interdisciplinary Reflection
 - c. Empowerment, Literacy and Inclusion + Interdisciplinary Reflection
3. The presentation of the MAZI/Berlin prototype, its initial deployments for the first interviews, a public demonstration and a public discussion



Figure 30: A scene of the public presentation of MAZI as part of the event on July 15th 2016

4. Evaluation

4.1 Conclusions on first deployments

Having had the opportunity to confront a vast number of very diverse people with our ideas, concepts and processes, but also the prototypes concretely, we were able to draw a number of conclusions that will enable us to enter the next phase of development based on very valuable learnings and experiences. Examples include:

Trust Building between communities and EU-partners:

- MAZI as a project and its members as a consortium gained trust in the community and sceptical positions towards the project (institutional, big public money, dissemination of initiative's social and political capital) lost some distance.
- Consortium members went from being abstract names to "real" people; relationships to actors within the Berlin community were established.
- The audience's need to receive information/knowledge about technological aspects was not catered appropriately. This happened predominantly out of a biased view on visitors, as "not being interested" in technical details (wrongful dichotomy of "technologists" and "non-technologists").

Presentation of the prototype to the public

- The presentation of the prototype was well received and responded with interest to use it and/or collaborate and discuss in different contexts. For example, we received the invitation to present the project at the Metrozones Camp²⁸, an event most interesting for MAZI, as it is contextualized at the fringes of academia and urban activism in Germany.
- The event brought upon interest of different networks and publicity channels. As an example, the national news channel SWR covered the event and conducted interviews over the course of two days in preparation of a story yet to be published.
- The presentation furthermore connected different actors from relevant fields. Especially through the round-table format during the first part of the event, and positioned the NAK within the discussion about DIY Networks and Alternative Technology Development in Berlin and beyond.

Test of the prototype

- Considering the early stage in the project, the prototype functioned pleasingly well and was well-received. The recorder-application functioned flawlessly, as did the automatic upload function to the archive. Some minor issues (e.g. upside-down display of images) were detected and will be worked on as a next step. The access to the archive-application through the Wi-Fi was rather troublesome for some inexperienced users and will present us with one of the biggest challenges for the future. We tested the tool on many different levels: The interview situation, the editing of contributions, the navigation within the interface, the interaction with the offline-network as such, etc. Thus, this first deployment provided us with a rich pool of knowledge to continue the further development.

²⁸ <https://www.metrozones.info/wp-content/uploads/2016/09/mZ-Schule-Sommercamp-2016.pdf>

4.2 Prototype: Preliminary Feedback & Next steps

As the prototype has merely been deployed for a couple of hours so far, we cannot provide rich data on the use of the technology to be evaluated for this report. We did however gather feedback from the interviewers of NAK as to their first impressions. The following is a collection of quotes from this feedback session conducted on July 19th 2016, four days after the public presentation of the first instantiation. These quotes are ordered by topic and, when applicable or possible, completed with the necessary steps that are anticipated to be addressing the issues:

FEEDBACK/ISSUES	CONSEQUENCES/NEXT STEPS
<u>QUESTIONS</u> ²⁹	
»Not interesting enough with generic questions, very specific questions are needed. You miss out on the interesting parts of the people you talk to«.	This is one of the central challenges that will be at the core of the following discussions/further developments and experimentation/testing: To enable the individual adjustment to the respective interview situation/the individual interviewee and to still allow for categorization, synthesization and comparability.
»Some of the questions were misleading. For example, “what was your biggest insight in our time together”. The questions are too big, what is the strongest/best/... [...] You are less asking for a description but instead of judgements.« »Interviewees are answering very vaguely. You really need to be able to ask follow-up questions.«	For the next iteration, we will experiment with the openness/concreteness of the questions, exploring the branching of the questionnaire.
»[...] We should ask them who they are, name/role etc. – that this is recorded. But to mix the content and the personal information in audio might be a bit difficult to listen to.«	The structuring of information as well as the presentation of the graphical user interface (GUI) is still subject to design. By using the first iteration of the prototype throughout the fall/winter season 2016/17, we will gather data on how to proceed with the next version of the prototype.
»What was nice, was that you had the feeling that you were co-producing the content with the interviewee.«	We should explore how to amplify this experience in the next iterations of the design of the “situation”/ritual of conducting interviews through testing different approaches and scenarios.
<u>OBJECTIVE(S) AND ROLES</u>	
»Right now it is more about biographies, you can go this way but then you have to really push it. If we do it like this, then it might not be so useful for documentation. Are the two levels – documentation and broadcasting – compatible with each other?«	We are currently re-assessing the pilot’s objectives in relation to the prototype. Not only the conceptual approach to the content but also the functionalities of the prototype are still open to discussion. We will in this sense explore the use of other content such as pdfs, links, timelines, geo-tagged entries etc.

²⁹ The selection of questions has been reflected one-by-one. This table does not include the feedback on particular questions, as they are subject to change through reflection by NAK in the coming process. Instead, this list contains feedback of more general relevance.

»The goal discussion should be held within the NAK and with everyone in the group. We are going to work with the prototype for ever, and I think it is really important that our community really uses it.«	Through the coming testing phase, we will gather knowledge that will help us to make the discussions of the next stages more grounded in concrete experiences.
»We should be aware of roles between the UdK and the NAK. There are different roles and relationships thinkable and performed; client/service provider vs. project-team. We should talk more about this.«	This is an ongoing process of negotiation and research within the project. WP3 (Interdisciplinarity) devotes itself to untangle the complex relationships emerging from the project. Within the Berlin pilot, we are currently reflecting on the implications of these relationships both on a theoretical level (in upcoming publications as well as in a PhD-thesis under development at UdK) as well as in its practical dimensions.
»We stopped the conversation on the goal of the prototype at some point just to make sure that we have something until the 15th. But we have to reset this question. For us it is clear that we have different needs from this prototype. We were thinking of other information like pdfs, films etc.«	After a first formalization of the MAZI prototype we need to address the question of the core function of the tool and its potential development in relationship to the pilot's objectives.
»We are still not sure whether to focus on the internal use or on the broadcasting version of the tool.«	We are currently preparing the next phase (Development of information base) by keeping open both directions in terms of use scenarios, as this provides us with productive friction.
<u>INTERVIEW-SITUATION</u>	
» I didn't use the table cloth, and black is not the right colour for feeling inviting. It should be more inviting.«	The staging of the interview can be experimented with different arrangements, materials and spatial settings.
»[The recorder] should be a bit more portable. I like that it is black and techy. I agree that the tablecloth could be a bit more humoristic, something old fashion. It is really good to write on it and everyone liked it. It is more like notebook where you write down notes.«	The portability of the tool is an aspect to be discussed in coming meetings. At the moment, we are strongly considering the recorder to be a mere mobile application in order to allow for spontaneous use. The "staging" of the interview situation will be further explored.
»I don't like the colors [of the recorder-app] and it doesn't look like NAK. I was really impressed how good everything worked. But it should look like NAK. It should look like us.«	The GUI as well as the overall "look and feel" of the prototype will be subject to further developments and will be worked on in future co-design workshops.
»If there is information on the tablecloth then it would be nice to make a photograph of it and put it with the interview.«	The initial experiments regarding the ritualized situation of conducting interviews needs further exploration and concretization. A viable way of documenting the more ephemeral elements of these situations is crucial and is to be determined.

<u>ARCHIVE/DATABASE</u>	
»Here it would be interesting to know how to put data into the platform when I am traveling. Also being able to edit the tags after the interview would be good.«	A backend with editing functions for users with administrative rights is under development.
<u>SPEAKERS/AUDIO-INSTALLATION</u>	
»It is a super nice installation. Children had a great time with them but they will brake them immediately. How stable and resilient are they? They have to be water and children proof. It has to be fixable or it is build indestructible.«	This learning will be incorporated in future iterations.
»You would also need a sign to understand what you are listening to.«	This learning will be incorporated in future iterations.
<u>PUBLIC PRESENTATION</u>	
»Our expectations were too high on the audience; we should have been much more basic. I was asked so many basic questions that were not taken up in the public presentation [...] There were the societal questions and the technical questions. We should have split the subjects and made clear when we are talking about what«	The way partners talk about MAZI and the interdependencies of its technical, social and political aspects has to be refined in order to engage with different audiences.
»We really need a very easily explained film/graphic/text what the MAZI-node (DIY-network) is. This has to be very didactical«	UdK started talking about this with NetHood. The production of easily understandable material is on the list of objectives for the coming fall/winter period.
»During the public presentation everyone was sitting, it was maybe not so good, because people wanted to test/touch the technology.«	For the next phase of deployment, the prototype has to be in a stage that allows the easy and user-friendly experience of the application by users with little or no preliminary knowledge. For this, several usability-issues (e.g. unreliability of splash-page as access portal) are currently being recorded and catalogued in order to work on them systematically.

4.3 Conceptual derivations for the MAZI toolkit

In the course of carrying out the pilot work across the initial, 8-month life-span of the project, several learnings have emerged and gave way to conceptual derivations that seem relevant to reflect in hindsight to the overarching goals regarding the MAZI toolkit design. The following tries to isolate and describe some of these learnings, although it is important to point out the provisional character of this list due to the early stage of the pilot work. Hence, the following paragraphs take on the function of sketches, descriptions of topics, problems or leads that seem relevant for MAZI as a project, and thus should be further developed.

Furthermore, this version of the report's conceptual derivations focusses mainly on the community/collaborative aspects of the initial stages of the pilot, and hence shortcuts the more concrete aspects of designing the prototypes. This needs more time to be used, explored and reflected and will hence be subject for the next reporting phase.

4.4 Different levels of involvement – Relationship to other initiatives/wider network

As described above, the Berlin pilot of MAZI acknowledges the NAK as an entity which can not be isolated from the socio-political environment it is embedded in the city of Berlin and beyond. Hence, the “community partner” NAK is to be seen as an initiative that stands in close interdependence with other initiatives and individuals that consequently have to be – and have been – included into the process. Within this setup, we managed to initiate lively discussions and to overcome initial scepticism about the potential added value of technology for the relevant initiatives. Following this, we encountered a high level of curiosity about MAZI and its potential as an added value for the community. A clearly motivating effect has been the deep interest in the political approach of the project – community ownership of technological development, community owned data, DIY technology and self-organization. These aspects have quickly been linked to the political visions of many of the initiatives when speaking of community owned housing, self-sufficiency and community organizing around shared issues³⁰. The location-based quality of MAZI is a facet that engages the community members, as it stresses the importance of the local. And although we see the MAZI as a collective project, we have to consider the fact that there are different roles and responsibilities within the project. The Berlin-team, made up of UdK and Common Grounds, have a strong curating and decision-making role. We make this explicit and transparent in our work with communities. Nevertheless, the community initiatives and other actors invited into this process are collaborative thinkers and are vital in the forming of the project and its results.

All initiatives are bound to the limitation of time, lack of economic resources, limitations of voluntary commitment and the significant political pressure that underlines their day-to-day work. These constraints will always be the boundaries of the implementation of MAZI within the initiatives. Taking this aspect into account in every step of the way will be vital for the sustainability of the project implementation.

4.5 Creating expectations vs. creating openness

Expectation management appears to be central to the participatory development of the MAZI zone, and we see it as vital not to create expectations that we cannot meet within the project. As described in the point above, the process structure involves a wide range of stakeholders with very different roles and levels of involvement. And as described in section 2.3 of this document (Participatory Design Approach), we decisively aim at incorporating the needs, wishes and conceptual frames of the relevant stakeholders into the design of the prototype. However, as we cannot fulfil these concepts for each and every participant of these processes, we carefully communicated the structure and aim of the co-design sessions, in order not to run the risk of disappointment. The goal, again, is to create tools with sufficient openness to allow for creative appropriation, productive misuse and the alteration of the prototype to fit the needs, contexts and circumstances of more than just one community.

4.6 Finding added value, not add-ons

While working together with the described initiatives/communities, it appears elemental to amplify existing processes instead of creating new ones, hence to anticipate any developments as added values, not as additional fields for work. A risk we identified at the beginning of the project is surpassing actual needs of NAK as well as of the wider community in search of possible uses of the DIY-network. Seeing that resources within community initiatives are most often strained in form of time and economic means, it is vital to create situation where the MAZI is an added value and not an added burden. We are meeting this risk through:

³⁰ Further elaborated on under point XYZ

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- the intense pre-surveying of needs through the community workshops,
 - by developing a MAZI-prototype for the NAK that has the potential of being adopted, appropriated and multiplied by other initiatives, focusing on questions of content production, editing processes, maintenance and adaption/multiplication.

Consequently, it is paramount to avoid the understanding of MAZI as a technological gimmick, a working layer on top of an already strenuous working situations or as a means for itself.

4.7 The transformation of roles

As described in detail in the deliverables of work package 3 of this project, the interdisciplinary nature of the MAZI consortium is a point of great interest both as a strategy for developing technologies, processes and knowledge that are useful and grounded in the life worlds of real communities, but also as research subject in and of itself. This pilot contributes to the reflection of ongoing transformations of roles, as it carefully observes the resulting, productive tension and processes of negotiations. These considerations are at their mere beginning, and address different scales of relationships, such as that between the Berlin pilot and the wider MAZI network, the partnership UdK-NAK and its relationship to the network of communities in Berlin and beyond, as well as the working relationship between UdK and NAK in particular.

Exemplary points under discussion are the different sociomaterial currencies and forms of dissemination, different perspectives on criteria for success, as well as ongoing negotiations of identities and functions. These constantly oscillate in-between dichotomies such as bottom up/top down, provider/client, maker/user, speaker/listener, editor/reader, teacher/learner, community/institution or organizer/technologist. This construction, deconstruction and hybridization of roles and identities appear in all mentioned scales, and are subject of ongoing discussions, reflections and future challenges.

5. Discussion & Outlook

This section concludes this version of the report with a summary of what has been accomplished, about the arising challenges and a description of the work to be done in the next future and about high-level goals that arise for the context of the pilot in addition to the objectives of MAZI as a project.

This first stage of the pilot was mainly concerned with:

- a) setting up the project and arriving at a common course as a project team
- b) reaching out to relevant communities and
- c) developing a prototype as a concrete starting point for the processes to come.

In these objectives, the pilot succeeded in several levels:

- We managed to integrate the project's objectives with the overarching objectives of the partner community and developed a shared agenda and vision, as well as a trustful and functioning structure for collaboration.
- As a project team, we overcame the initial scepticism by actors of the wider stakeholder landscape, and successfully introduced MAZI as a point of interest for a variety of networks and individuals.
- We developed, designed and implemented a first and working version of the prototype, which is perceived as being valuable and will be used throughout the next months. This usage will be systematically observed and documented, and thus promises the generation of valuable knowledge for the project.
- In addition to that, we started to derive more high-level, conceptual considerations for the development for the MAZI toolkit and the information of the other pilots.

Several tasks are central to the coming phases in developing the MAZI pilot in Berlin. In regards to the prototype, we will proceed the optimization of the tool itself, e.g. bug-fixing, development of backend, mobile version of recorder, etc. This will enable us to build up and develop the information base, hence to produce the initial content necessary for the MAZI zone to be used and appropriated.

On a second level, the observation and analyses of these processes will contribute to the knowledge generation necessary for the further development of MAZI as a project at large, as the data emerging from the usage, observation and testing of the prototype in the next stages of the pilot will feed into the coming iterations, where the current state of our developments will be exposed to and further developed by both the everyday use by NAK as well as further workshops with the wider community.

Furthermore, we will continue to derive relevant concepts, questions and challenges that will inform the concrete, practical endeavours of the consortium as well as theoretically contribute to the relevant discourses within and beyond the project.